



## **DATOS RELEVANTES DEL MERCADO ELÉCTRICO PANAMEÑO**

**MAYO DE 2019**

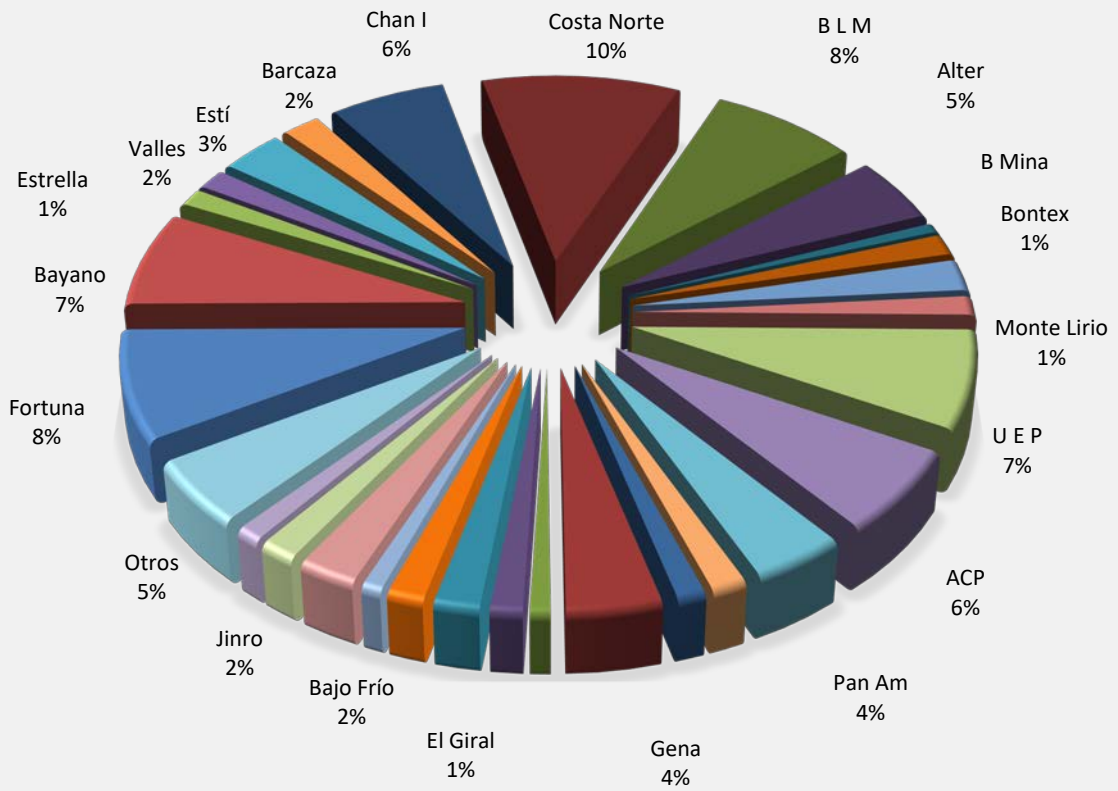
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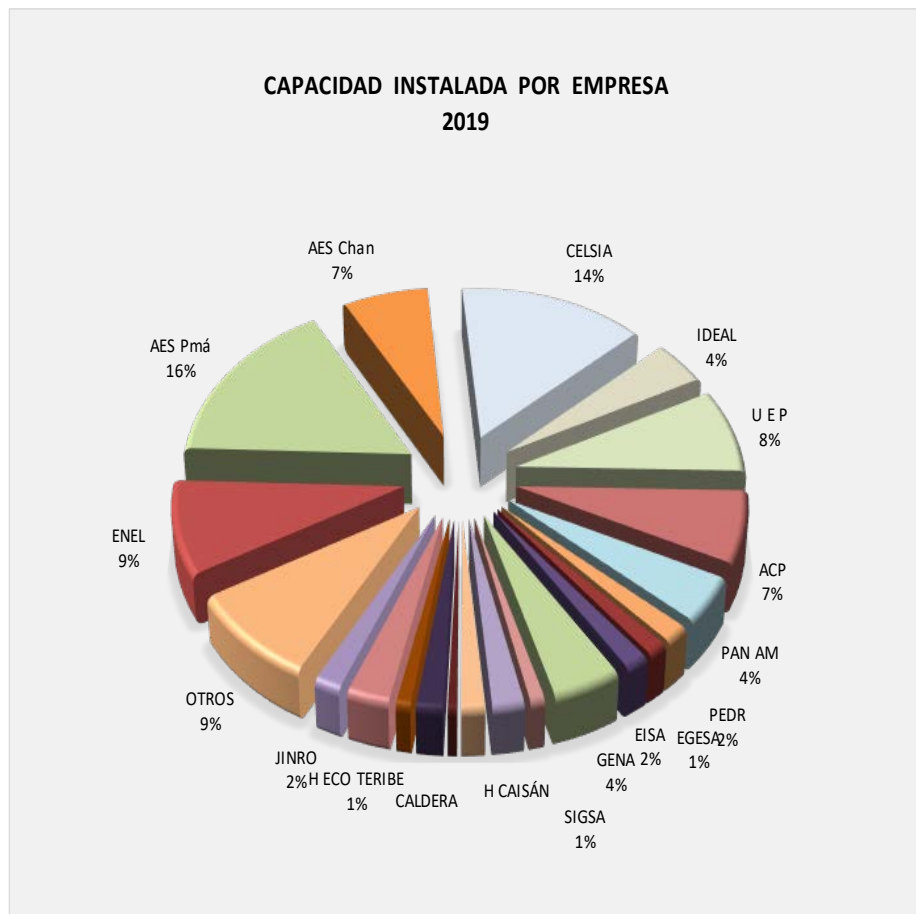
## I. CAPACIDAD INSTALADA Y CAPACIDAD FIRME POR AGENTE Y POR PLANTA

| EMPRESA      | PLANTA      | Capacidad<br>Instalada<br>MW | Capacidad<br>Firme<br>MW |
|--------------|-------------|------------------------------|--------------------------|
| ENEL         | Fortuna     | 300.00                       | 284.00                   |
| AES Pmá      | Bayano      | 260.00                       | 160.12                   |
| AES Pmá      | Estrella    | 47.20                        | 16.13                    |
| AES Pmá      | Valles      | 54.76                        | 17.63                    |
| AES Pmá      | Estí        | 120.00                       | 112.67                   |
| AES Pmá      | Barcaza     | 72.00                        | 72.00                    |
| AES Chan     | Chan I      | 222.17                       | 175.33                   |
| AES Colón    | Costa Norte | 381.00                       | 381.00                   |
| CELSIA       | B L M       | 280.00                       | 240.50                   |
| CELSIA       | Alter       | 179.42                       | 164.21                   |
| CELSIA       | Bontex      | 25.41                        | 23.04                    |
| IDEAL        | B Mina      | 56.80                        | 20.07                    |
| IDEAL        | Baitún      | 85.90                        | 31.09                    |
| EISA         | Monte Lirio | 51.60                        | 32.38                    |
| U E P        | U E P       | 270.00                       | 0.00                     |
| ACP          | ACP         | 231.54                       | 144.50                   |
| PAN AM       | Pan Am      | 147.00                       | 145.00                   |
| PEDR POWER   | Pacora      | 55.35                        | 53.00                    |
| EGESA        | Energyst    | 44.98                        | 34.00                    |
| GENA         | Gena        | 150.00                       | 144.50                   |
| SIGSA        | SIGSA       | 32.18                        | 29.50                    |
| VALLEY       | El Giral    | 50.85                        | 22.00                    |
| H CAISÁN     | El Alto     | 72.00                        | 22.14                    |
| FOUNTAIN     | Bajo Frío   | 57.90                        | 19.42                    |
| H ECO TERIBE | Bonyic      | 31.80                        | 20.00                    |
| KANAN        | Kanan       | 92.50                        | 90.00                    |
| JINRO        | Jinro       | 57.80                        | 55.00                    |
| TECNISOL     | Ikako       | 40.00                        | 0.00                     |
| OTROS        | Otros       | 297.34                       | 56.69                    |
| <b>TOTAL</b> |             | <b>3,767.50</b>              | <b>2,565.92</b>          |

**CAPACIDAD INSTALADA POR PLANTA  
2019**



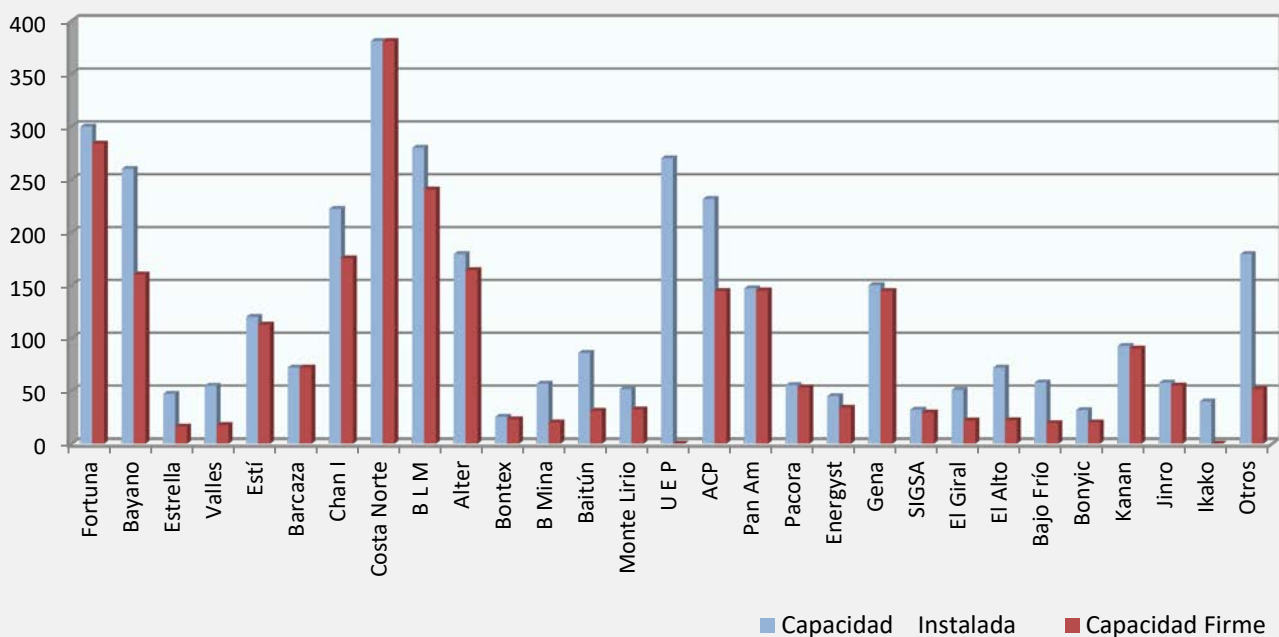
| Empresa      | Capacidad Instalada<br>MW | Capacidad Firme<br>MW |
|--------------|---------------------------|-----------------------|
| ENEL         | 300.00                    | 284.00                |
| AES Pmá      | 553.96                    | 378.55                |
| AES Chan     | 222.17                    | 175.33                |
| CELSIA       | 484.76                    | 427.75                |
| IDEAL        | 142.70                    | 51.16                 |
| U E P        | 270.00                    | 0.00                  |
| ACP          | 231.54                    | 144.50                |
| PAN AM       | 147.00                    | 145.00                |
| PEDR         | 55.35                     | 53.00                 |
| EGESA        | 42.80                     | 34.00                 |
| EISA         | 51.60                     | 32.38                 |
| GENA         | 150.00                    | 144.50                |
| SIGSA        | 32.18                     | 32.00                 |
| H CAISÁN     | 69.48                     | 22.14                 |
| VALLEY       | 50.85                     | 22.00                 |
| CALDERA      | 19.75                     | 3.90                  |
| FOUNTAIN     | 57.90                     | 19.42                 |
| H ECO TERIBE | 31.80                     | 20.00                 |
| KANAN        | 92.50                     | 90.00                 |
| JINRO        | 57.87                     | 55.00                 |
| OTROS        | 297.34                    | 56.69                 |
| <b>TOTAL</b> | <b>3,361.55</b>           | <b>2,191.32</b>       |



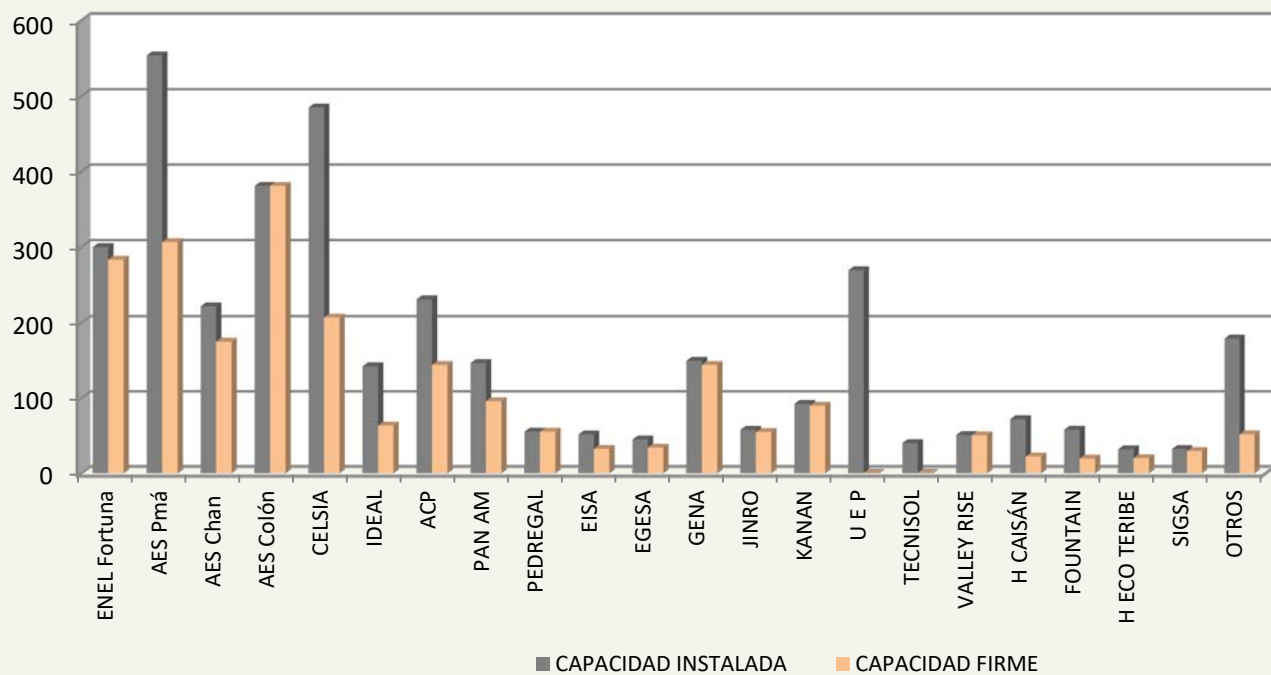
| <b>OTROS</b>            | <b>Capacidad<br/>Instalada<br/>MW</b> | <b>Capacidad<br/>Firme<br/>MW</b> |
|-------------------------|---------------------------------------|-----------------------------------|
| Perlas Norte            | 10.00                                 | 2.46                              |
| Perlas Sur              | 10.00                                 | 2.46                              |
| Istmus                  | 10.00                                 | 2.49                              |
| Yeguada                 | 7.00                                  | 3.00                              |
| Dolega                  | 3.12                                  | 1.10                              |
| Macho de Monte          | 2.50                                  | 0.80                              |
| Algarrobos              | 9.86                                  | 2.41                              |
| Paso Ancho              | 6.78                                  | 4.30                              |
| Alto valle              | 15.50                                 | 3.06                              |
| Caldera Mendre 1        | 19.75                                 | 3.90                              |
| Pedregalito             | 20.00                                 | 5.25                              |
| Río Chico               | 12.00                                 | 3.22                              |
| H Piedra RP 490         | 14.00                                 | 3.00                              |
| Hidro Ibérica El Fraile | 5.30                                  | 5.00                              |
| Salto del Francolí      | 4.74                                  | 0.91                              |
| Hidro Panamá Antón      | 4.30                                  | 0.74                              |
| Hidro Boquerón Macano   | 3.50                                  | 0.90                              |
| Bugaba 1 Emnadesa       | 5.14                                  | 0.50                              |
| Mendre 2 Egeistmo       | 7.80                                  | 2.50                              |
| San Lorenzo             | 8.12                                  | 3.78                              |

|                       |               |              |
|-----------------------|---------------|--------------|
| Hidro Candela Eleta   | 0.53          | 0.13         |
| Grupo Melo            | 1.57          | 1.57         |
| Corp Istmo Las cruces | 9.70          | 3.21         |
| Urbalia               | 8.10          | 8.00         |
| PSZ 1 El Espinal      | 8.50          | 8.00         |
| Coclé Solar Azucarera | 0.96          | 0.00         |
| Divisa Solar          | 9.99          | 0.00         |
| Farallón 2            | 9.96          | 0.00         |
| G Solar Albroom       | 0.10          | 0.00         |
| Sarigua Egesa         | 2.40          | 0.00         |
| Enel San Juan         | 9.30          | 0.00         |
| Azuero Venture        | 9.50          | 0.00         |
| Coclé Venture         | 8.90          | 0.00         |
| Panamá Venture        | 8.90          | 0.00         |
| El Fraile Solar       | 0.48          | 0.00         |
| Solar Uno             | 5.50          | 0.00         |
| Solar Istmo           | 9.99          | 0.00         |
| Solar Bugaba          | 2.56          | 0.00         |
| Solar Canopo          | 1.00          | 0.00         |
| LL Sánchez Solar      | 9.99          | 0.00         |
| <b>TOTAL</b>          | <b>179.41</b> | <b>51.78</b> |

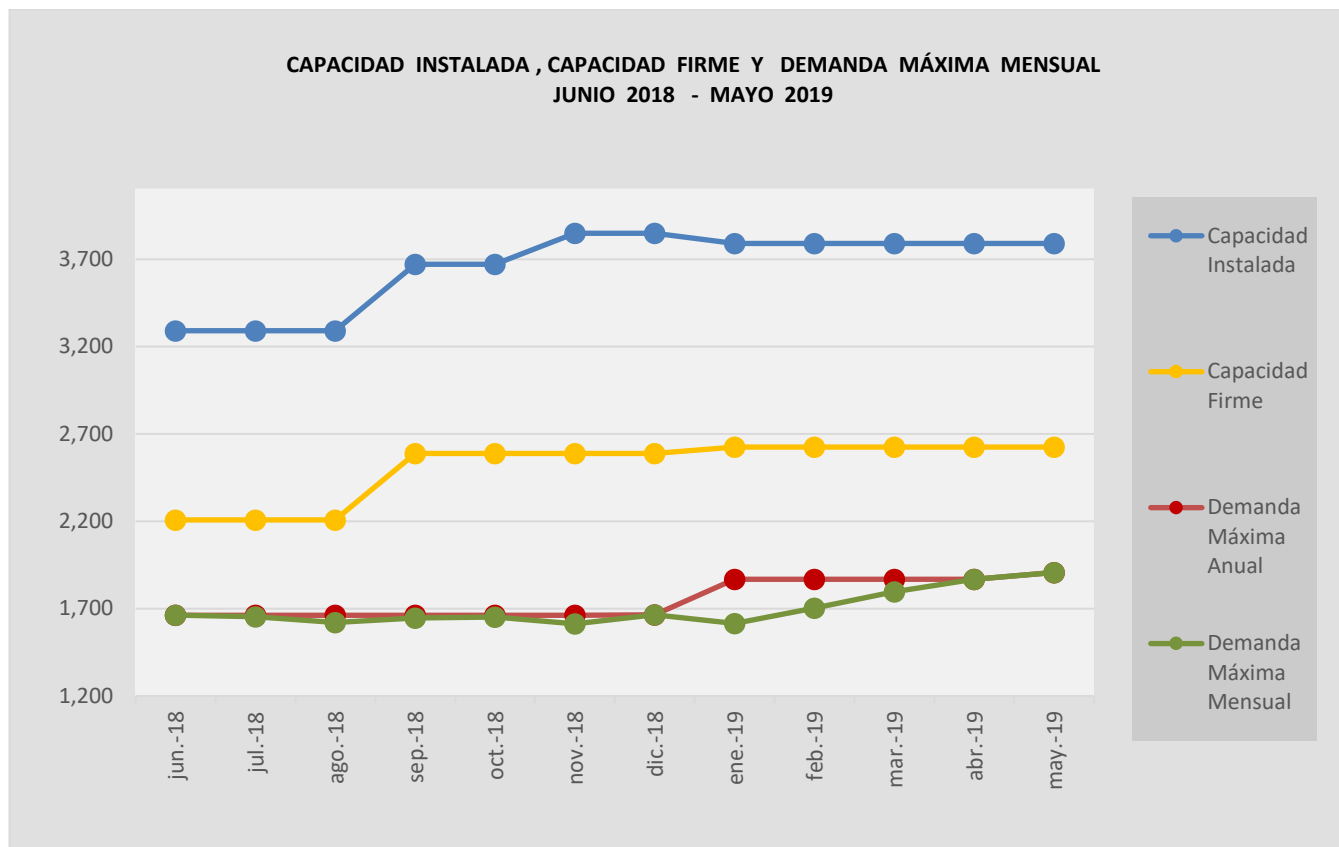
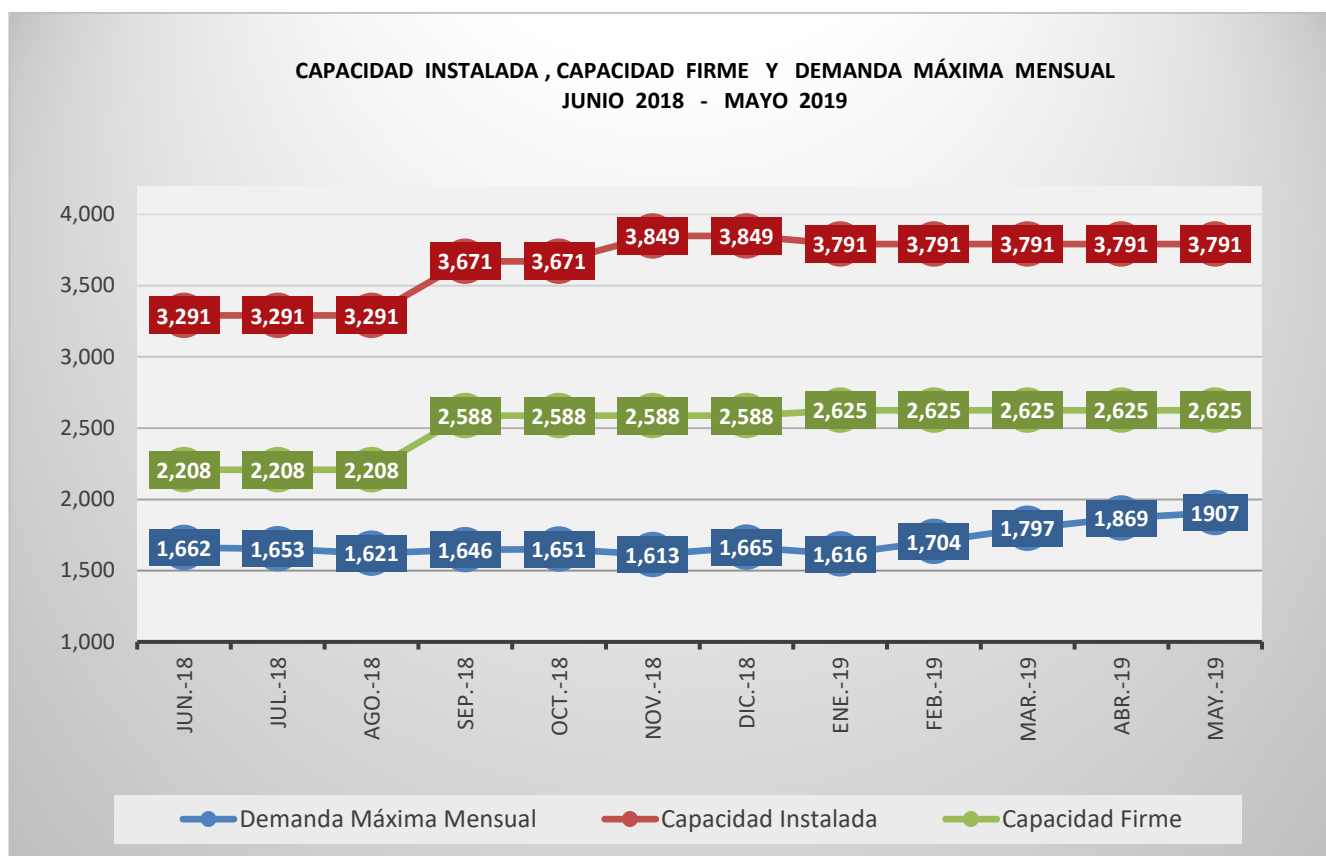
**CAPACIDAD INSTALADA Y CAPACIDAD FIRME POR PLANTA (MW)  
2019**



**CAPACIDAD INSTALADA Y CAPACIDAD FIRME POR EMPRESA (MW)  
2019**



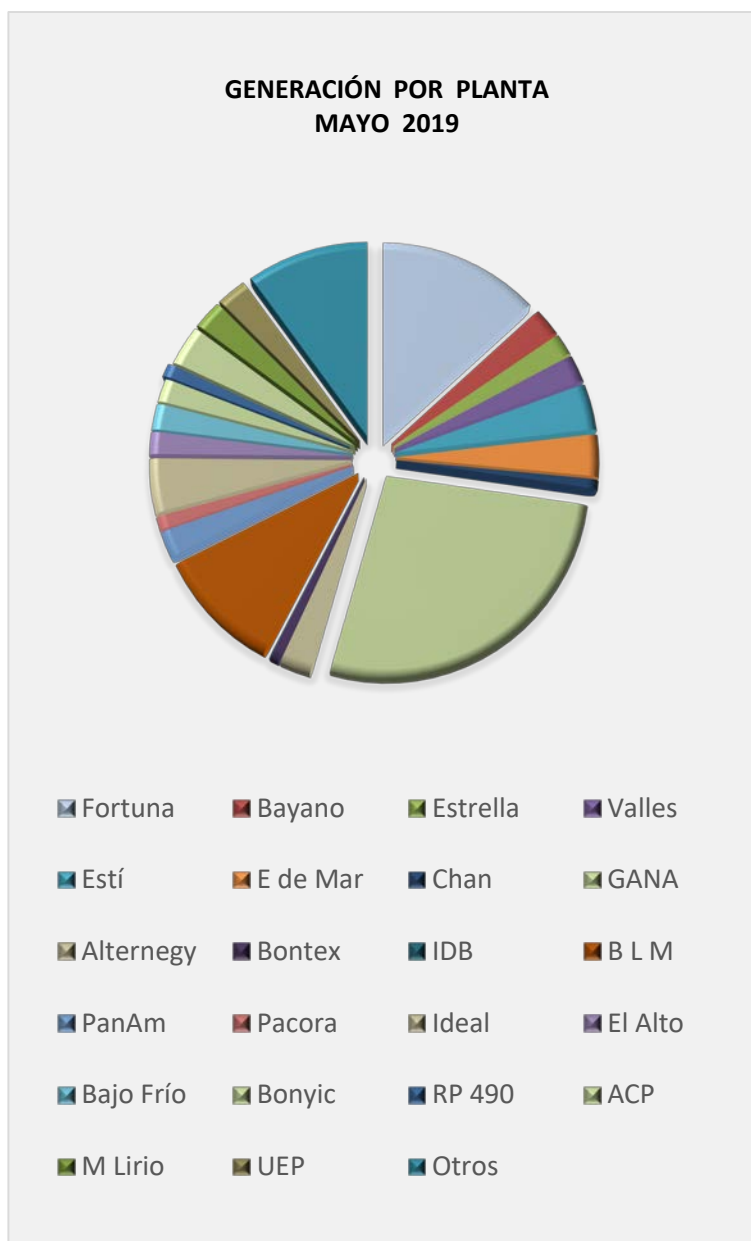
## CAPACIDAD INSTALADA Y FIRME VS DEMANDA MÁXIMA MENSUAL



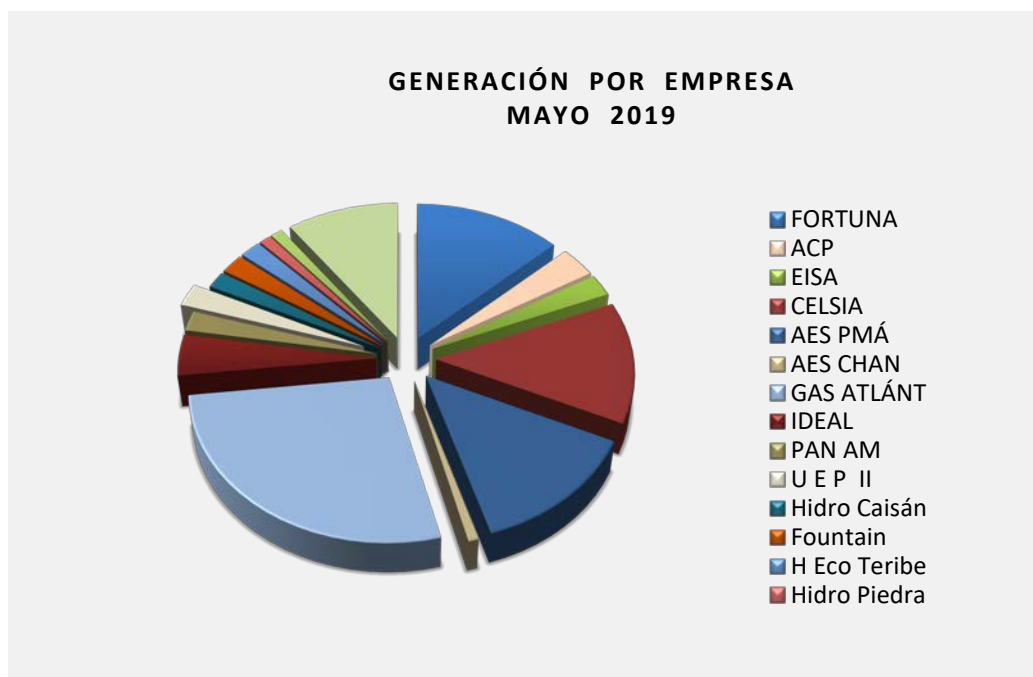


## II. GENERACIÓN POR EMPRESA Y PLANTA

| Empresa      | Planta       | MWh               |
|--------------|--------------|-------------------|
| ENEL         | Fortuna      | 121,611.45        |
| AES Pmá      | Bayano       | 20,994.16         |
| AES Pmá      | Estrella     | 16,395.82         |
| AES Pmá      | Valles       | 20,380.32         |
| AES Pmá      | Estí         | 34,657.55         |
| AES Pmá      | E de Mar     | 31,634.79         |
| AES Chan     | Chan         | 7,135.34          |
| AES Colón    | GANA         | 251,028.77        |
| CELSIA       | Alternegy    | 22,899.38         |
| CELSIA       | Bontex       | 6,404.36          |
| CELSIA       | IDB          | 0.00              |
| CELSIA       | B L M        | 92,149.55         |
| PAN AM       | PanAm        | 19,774.98         |
| PEDREGAL     | Pacora       | 9,952.46          |
| IDEAL        | Ideal        | 40,856.90         |
| Hidro Caisán | El Alto      | 16,786.09         |
| Fountain     | Bajo Frío    | 19,296.36         |
| H Eco Teribe | Bonyic       | 17,380.64         |
| Hidro Piedra | RP 490       | 9,748.00          |
| ACP          | ACP          | 30,165.81         |
| EISA         | M Lirio      | 21,777.06         |
| UEP          | UEP          | 22,521.09         |
| OTROS        | Otros        | 92,182.75         |
|              | <b>TOTAL</b> | <b>925,733.64</b> |



| Empresa      | MWh               |                |
|--------------|-------------------|----------------|
| FORTUNA      | 121,611.45        | 13.14%         |
| ACP          | 30,165.81         | 3.26%          |
| EISA         | 21,777.06         | 2.35%          |
| CELSIA       | 121,453.30        | 13.12%         |
| AES PMÁ      | 124,062.64        | 13.40%         |
| AES CHAN     | 7,135.34          | 0.77%          |
| GAS ATLÁNT   | 251,028.77        | 27.12%         |
| IDEAL        | 40,856.90         | 4.41%          |
| PAN AM       | 19,774.98         | 2.14%          |
| U E P II     | 22,521.09         | 2.43%          |
| Hidro Caisán | 16,786.09         | 1.81%          |
| Fountain     | 19,296.36         | 2.08%          |
| H Eco Teribe | 17,380.64         | 1.88%          |
| Hidro Piedra | 9,748.00          | 1.05%          |
| PEDREGAL     | 9,952.46          | 1.08%          |
| OTROS        | 92,182.75         | 9.96%          |
| <b>TOTAL</b> | <b>925,733.64</b> | <b>100.00%</b> |

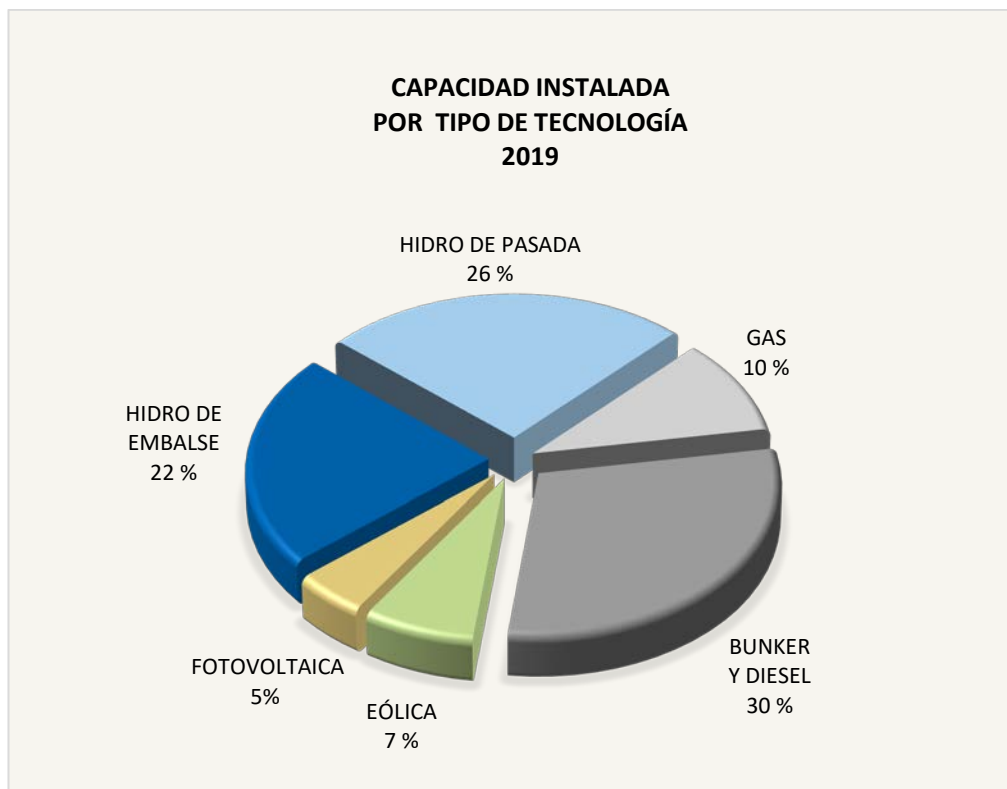


| <b>OTROS</b>     |               |            |
|------------------|---------------|------------|
| <b>Empresa</b>   | <b>Planta</b> | <b>MWh</b> |
| Alto valle       | A Valle       | 4,068.19   |
| Café Eleta       | Caldeco       | 5,583.77   |
| San Lorenzo      | S Lorenzo     | 1,553.42   |
| Pedregalito      | Pedregalito   | 6,181.95   |
| Río Chico        | Río Chico     | 3,982.05   |
| Paso Ancho       | P Ancho       | 2,028.96   |
| Istmus           | Concepción    | 4,753.55   |
| Perlas Norte     | P Norte       | 3,919.51   |
| Perlas Sur       | P Sur         | 3,901.99   |
| Saltos Francolí  | Planetas      | 1,494.78   |
| Hidro Ibérica    | El Fraile     | 2,570.42   |
| Emnadesa         | Bugaba        | 3,188.09   |
| Hidro Boquerón   | Macano        | 2,505.48   |
| Electrogen Istmo | Mendre 2      | 2,340.94   |
| Esepsa           | Yeguada       | 0.00       |
| Esepsa           | Dolega        | 914.06     |
| Esepsa           | M Monte       | 704.35     |
| Esepsa           | Algarrobos    | 3,343.10   |
| Hidro Panamá     | Antón         | 553.37     |
| Hid Candela      | Hid Candela   | 43.78      |
| Genisa           | Genisa        | 4,619.35   |
| Corp Istmo       | Corp Istmo    | 3,320.83   |
| Urbalia          | Urbalia       | 1,582.46   |
| Kanan            | Kanan         | 1,698.74   |
| Jinro            | Jinro         | 3,336.90   |

| <b>OTROS</b>          |                  |                  |
|-----------------------|------------------|------------------|
| <b>Empresa</b>        | <b>Planta</b>    | <b>MWh</b>       |
| Bajos del Totuma      | Bajos Totuma     | 1,429.85         |
| Desarrollos Hidroelec | San Andrés       | 1,690.14         |
| EGESA                 | Sarigua          | 133.31           |
| Energyst              | Energyst         | 1.75             |
| Tropitérmica          | Tropitérmica     | 71.51            |
| Feisa                 | Feisa            | 2,443.55         |
| P S Z 1               | P S Z 1          | 797.25           |
| El Fraile Solar       | El Fraile        | 56.90            |
| Solar Uno             | Solar Uno        | 478.14           |
| Solar Istmo           | Solar Istmo      | 540.97           |
| Bugaba Solar          | Bugaba Solar     | 177.16           |
| Canopo Solar          | Canopo Solar     | 44.62            |
| Azuero Venture        | Azuero Venture   | 1,168.35         |
| Coclé Venture         | Coclé Venture    | 1,256.85         |
| Panamá Venture        | Pmá Venture      | 1,152.12         |
| G Solar               | Albrook          | 5.19             |
| Enel                  | San Juan         | 1,033.82         |
| Azucarera             | Coclé Solar      | 119.23           |
| Panasolar             | Panasolar        | 357.44           |
| Llano Sánchez         | Ll. Sánchez      | 3,474.52         |
| Farallón Solar 2      | Farallón 2       | 591.16           |
| Divisa Solar          | D Solar          | 925.58           |
| Tecnisol              | Tecnisol 1 2 3 4 | 5,233.94         |
| C Solar               | C Solar          | 88.09            |
| Estrella Solar        | Estrella Solar   | 721.33           |
| <b>TOTAL</b>          |                  | <b>92,182.75</b> |

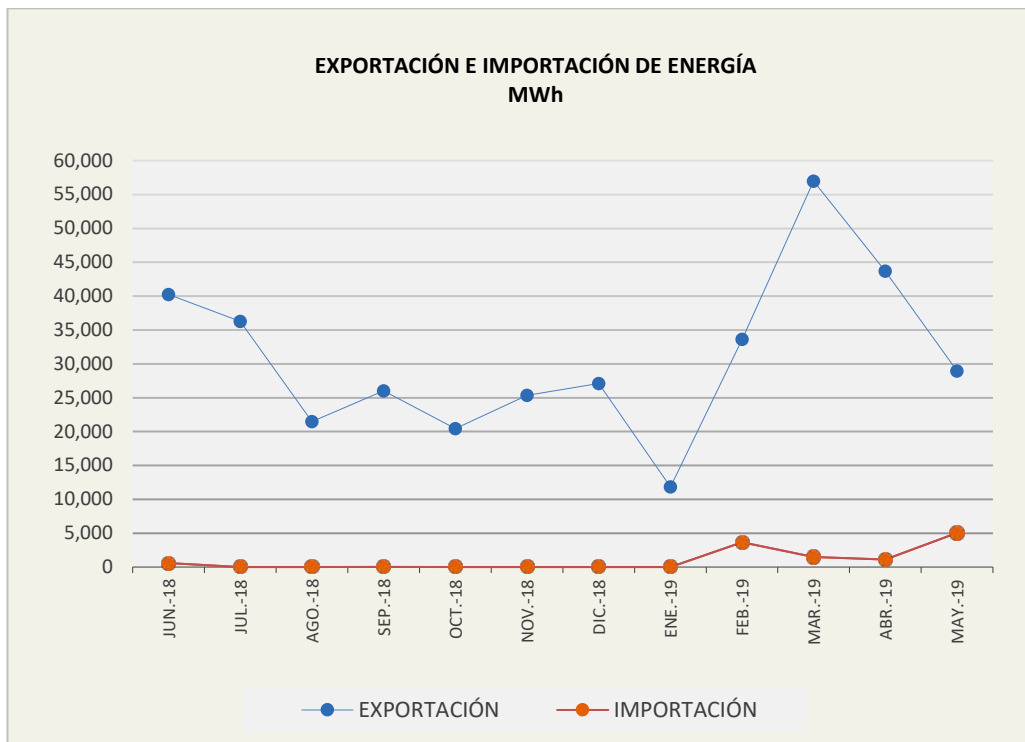
### III. CAPACIDAD INSTALADA POR TIPO DE TECNOLOGÍA

| TIPO DE TECNOLOGÍA | MW              | %           |
|--------------------|-----------------|-------------|
| HIDRO DE EMBALSE   | 842.17          | 22%         |
| HIDRO DE PASADA    | 969.48          | 26%         |
| GAS                | 380.00          | 10%         |
| BUNKER Y DIESEL    | 1,108.68        | 30%         |
| EÓLICA             | 270.00          | 7%          |
| FOTOVOLTAICA       | 175.99          | 5%          |
| <b>TOTAL</b>       | <b>3,746.32</b> | <b>100%</b> |



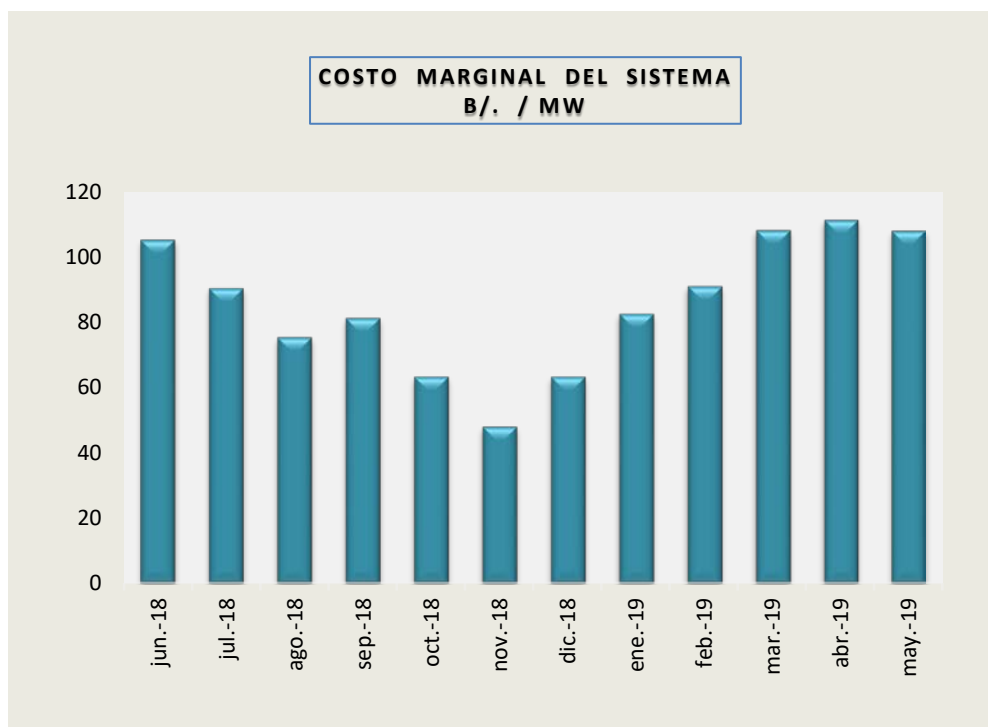
#### IV. IMPORTACIONES Y EXPORTACIONES

|        | EXPORTACIÓN | IMPORTACIÓN |
|--------|-------------|-------------|
|        | MWh         | MWh         |
| jun-18 | 40,237.30   | 609.35      |
| jul-18 | 36,278.21   | 0.00        |
| ago-18 | 21,482.72   | 0.00        |
| sep-18 | 26,013.52   | 2.44        |
| oct-18 | 20,429.48   | 0.00        |
| nov-18 | 25,370.50   | 0.00        |
| dic-18 | 27,117.69   | 0.00        |
| ene-19 | 11,824.50   | 0.00        |
| feb-19 | 33,647.74   | 3,665.49    |
| mar-19 | 56,991.59   | 1,500.02    |
| abr-19 | 43,700.02   | 1,130.19    |
| may-19 | 28,953.95   | 5,043.08    |



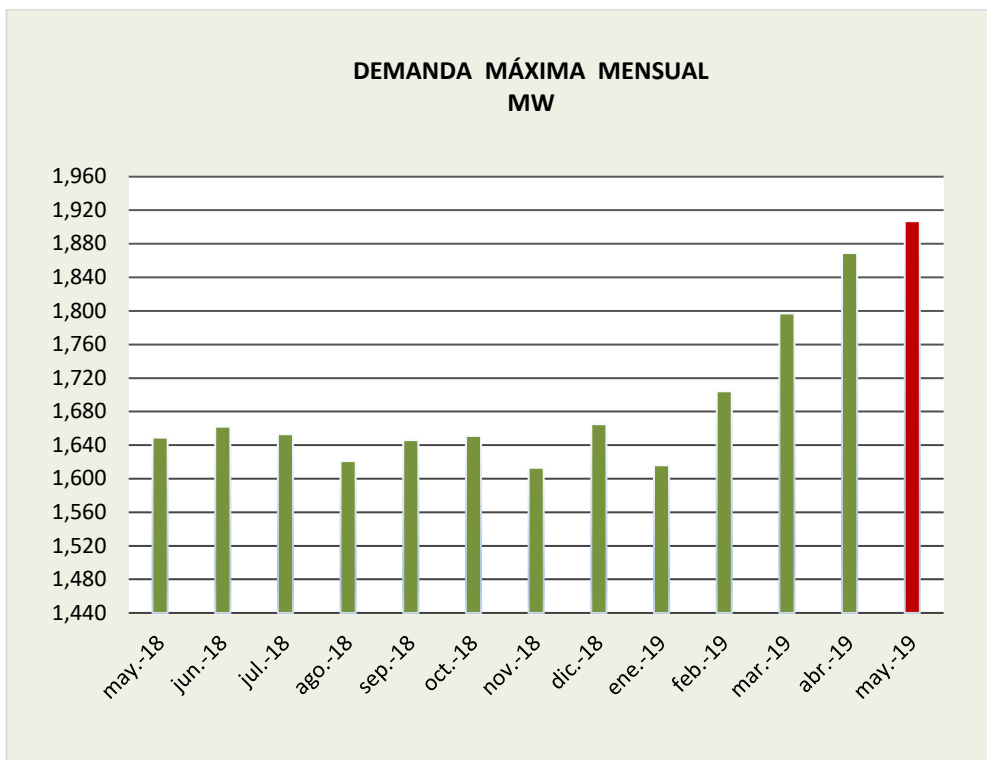
## V. COSTO MARGINAL DEL SISTEMA

| mes    | CMS<br>B/. / MWh |
|--------|------------------|
| jun-18 | 105.47           |
| jul-18 | 90.57            |
| ago-18 | 75.48            |
| sep-18 | 81.42            |
| oct-18 | 63.4             |
| nov-18 | 48.06            |
| dic-18 | 63.40            |
| ene-19 | 82.7             |
| feb-19 | 91.17            |
| mar-19 | 108.39           |
| abr-19 | 111.57           |
| may-19 | 108.2            |



## VI. DEMANDA MÁXIMA MENSUAL Y ANUAL

| mes    | Demanda<br>Máxima |
|--------|-------------------|
| may-18 | 1,649             |
| jun-18 | 1,662             |
| jul-18 | 1,653             |
| ago-18 | 1,621             |
| sep-18 | 1,646             |
| oct-18 | 1,651             |
| nov-18 | 1,613             |
| dic-18 | 1,665             |
| ene-19 | 1,616             |
| feb-19 | 1,704             |
| mar-19 | 1,797             |
| abr-19 | 1,869             |
| may-19 | 1,907             |





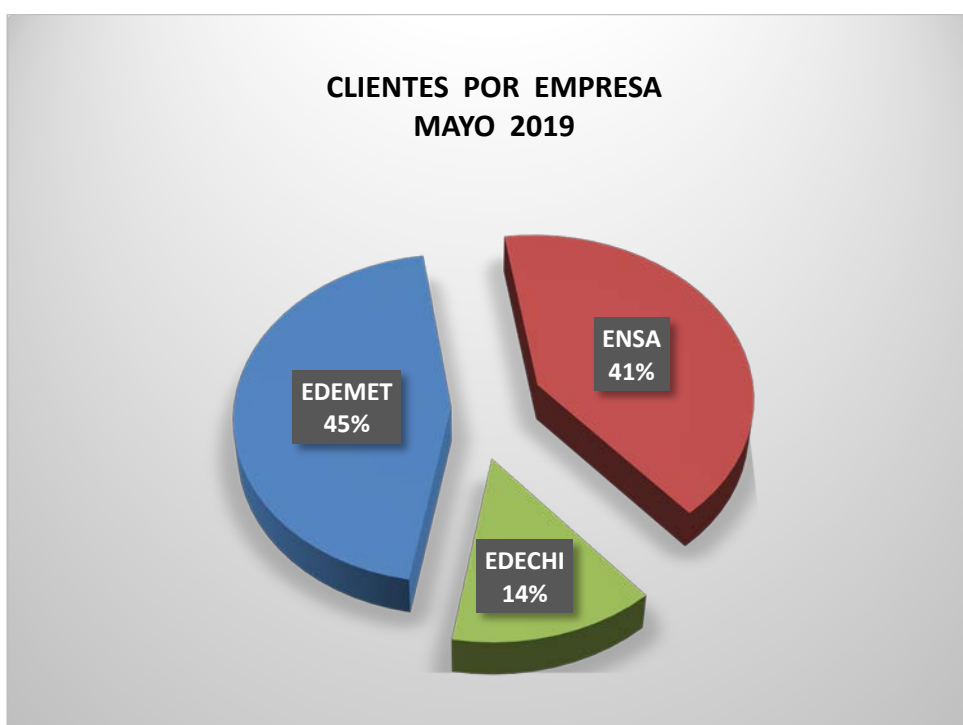
## VII. COSTO DE ENERGÍA Y POTENCIA HIDRO, TÉRMICO Y EÓLICO

| MAYO                 | EDEMET        |               |                |               | ENSA       |               |                |               |
|----------------------|---------------|---------------|----------------|---------------|------------|---------------|----------------|---------------|
|                      | HIDRO         | TÉRMICA       | EÓLICA Y SOLAR | TOTAL         | HIDRO      | TÉRMICA       | EÓLICA Y SOLAR | TOTAL         |
| COSTO POTENCIA (B./) | 7,004,798.25  | 11,996,156.40 | 0.00           | 19,000,954.65 | 262.04     | 4,543,116.22  | 0.00           | 4,543,378.26  |
| COSTO ENERGÍA (B./)  | 20,748,739.66 | 11,213,387.75 | 954,464.83     | 31,962,127.41 | 482,139.23 | 13,071,152.98 | 482,139.23     | 14,035,431.44 |
| COSTO TOTAL (B./)    | 27,753,537.91 | 23,209,544.15 | 954,464.83     | 50,963,082.06 | 482,401.27 | 17,614,269.20 | 482,139.23     | 18,578,809.70 |
| ENERGÍA (MWh)        | 288,815.34    | 151,054.50    | 9,367.23       | 439,869.84    | 4,764.22   | 113,988.82    | 4,764.22       | 123,517.26    |
| MONÓMICO (B./MWh)    | 96.09         | 153.65        | 101.89         | 115.86        | 101.26     | 154.53        | 101.20         | 150.41        |

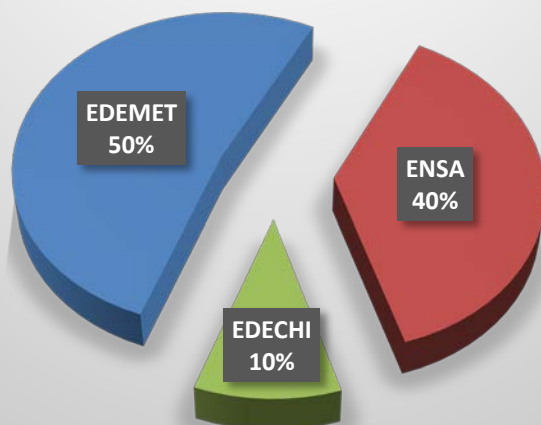
| MAYO                 | EDECHI       |              |                |              | TOTAL         |               |                |               |
|----------------------|--------------|--------------|----------------|--------------|---------------|---------------|----------------|---------------|
|                      | HIDRO        | TÉRMICA      | EÓLICA Y SOLAR | TOTAL        | HIDRO         | TÉRMICA       | EÓLICA Y SOLAR | TOTAL         |
| COSTO POTENCIA (B./) | 506,858.20   | 1,980,067.62 | 0.00           | 2,486,925.82 | 7,511,918.49  | 18,519,340.24 | 0.00           | 26,031,258.73 |
| COSTO ENERGÍA (B./)  | 4,389,371.46 | 2,606,491.64 | 340,062.95     | 6,995,863.11 | 25,620,250.35 | 26,891,032.38 | 1,776,667.01   | 54,287,949.74 |
| COSTO TOTAL (B./)    | 4,896,229.67 | 4,586,559.26 | 340,062.95     | 9,482,788.93 | 33,132,168.85 | 45,410,372.62 | 1,776,667.01   | 80,319,208.48 |
| ENERGÍA (MWh)        | 52,472.24    | 27,523.26    | 3,320.78       | 79,995.50    | 346,051.80    | 292,566.58    | 17,452.23      | 656,070.60    |
| MONÓMICO (B./MWh)    | 93.31        | 166.64       | 102.40         | 118.54       | 95.74         | 155.21        | 101.80         | 122.42        |

VIII. CLIENTES, VENTAS E INGRESOS POR DISTRIBUIDORA

| MAYO         | NÚMERO DE CLIENTES  | VENTAS (kWh)          | INGRESOS US \$        |
|--------------|---------------------|-----------------------|-----------------------|
| EDEMET       | 505,766.00          | 345,391,264           | 71,210,429            |
| ENSA         | 461364              | 293,893,300           | 63,943,738            |
| EDECHI       | 158,766.00          | 72,330,945            | 15,259,697            |
| <b>TOTAL</b> | <b>1,125,896.00</b> | <b>711,615,509.00</b> | <b>150,413,863.84</b> |



**VENTAS DE ENERGÍA POR EMPRESA  
MAYO 2019**



**CLIENTES POR EMPRESA  
MAYO 2019**

